

CLAIMS

We claim:

- Sub D7/1. A live interactive digital programming system, comprising:
- a viewer television reception system for receiving live interactive programming, the live interactive programming comprising a plurality of digitally compressed video, audio, branching codes and graphics signals, the reception system comprising:
 - a viewer interface for receiving viewer entries;
 - a microprocessor, connected to the viewer interface, for selecting one of the video and audio signals and directing a seamless switch to the selected video and audio signals at a predetermined time, the selection of the video and audio signals and the predetermined time of each selection a function of the branching codes and the received viewer entries;
 - a demultiplexer, for demultiplexing the selected video and audio signals;
 - a decompressor/decoder, connected to the demultiplexer for decompressing the demultiplexed selected video and audio signals;
 - a means for displaying the selected video signal; and
 - a means for playing the selected audio signal.

2. The live interactive digital programming system of claim 1, wherein the plurality of digitally compressed video signals corresponds to different predetermined camera angles of an event.

3. The live interactive digital programming system of claim 1, wherein the microprocessor selects one of the graphics signals at a predetermined time, the selection of the graphics signal a function of the branching codes and the received viewer entries, and further comprising a means, connected to the microprocessor, for presenting the selected graphics signal on the display means.

4. The live interactive digital programming system of claim 1, wherein the display means presents at least one interrogatory to the viewer, the content of the interrogatory involving program options, and the viewer entries correspond to collected entries from the viewer via the viewer interface in response to the interrogatories.

5. A live interactive digital programming system, comprising:
a viewer television reception system for receiving live interactive programming, the live interactive programming comprising a plurality of digitally compressed video, audio, branching codes and graphics signals, the reception system comprising:

memory, for storing a viewer profile;

a microprocessor, connected to the viewer interface, for selecting one of the video and audio signals and directing a seamless switch to the selected video and audio signals at a predetermined time, the selection of the video and audio signals and the predetermined time of each selection a function of the branching codes and the stored viewer profile;

a demultiplexer, for demultiplexing the selected video and audio signals;

a decompressor/decoder, connected to the demultiplexer for decompressing the demultiplexed selected video and audio signals;

a means for displaying the selected video signal; and

a means for playing the selected audio signal.

6. The live interactive digital programming system of claim 5, wherein the plurality of digitally compressed video signals correspond to different predetermined camera angles of an event.

7. The live interactive digital programming system of claim 5, wherein the microprocessor selects one of the graphics signals at a predetermined time, the selection of the graphics signal a function of the branching codes and the viewer profile, and further comprising a means, connected to the microprocessor, for presenting the selected graphics signal on the display means.

8. A live interactive digital programming system, comprising:

a viewer television reception system for receiving live interactive programming, the live interactive programming comprising a plurality of digitally compressed video, audio, branching codes, and one or more uniform resource locators specifying one or more Internet addresses of related Internet information segments obtained from Web sites on the Internet, the reception system comprising:

a viewer interface for receiving viewer entries;

a means, connected to the viewer interface, for processing comprising:

means for selecting one of the video and audio signals and directing a seamless switch to the selected video and audio signals at a predetermined time, the selection of the video and audio signals and the predetermined time of each selection a function of the branching codes and the received viewer entries;

a means for decoding the uniform resource locators to determine the specified Internet addresses;

a means, connected to the decoding means, for retrieving the one or more Internet information segments residing at the determined Internet addresses; and

a means for presenting the video and audio signals, and Internet information segments.

9. The live interactive digital programming system of claim 8, further comprising:

a demultiplexer, for demultiplexing the selected video and audio signals; and

a decompressor/decoder, connected to the demultiplexer, for decompressing the demultiplexed selected video and audio signals.

10. The live interactive digital programming system of claim 8, wherein the plurality of digitally compressed video signals correspond to a different predetermined camera angle of an event.

11. The live interactive digital programming system of claim 8, wherein the presenting means displays at least one interrogatory to the viewer, the content of the interrogatory involving program options, and the viewer entries correspond to

collected entries from the viewer via the viewer interface in response to the interrogatories.

12. The live interactive digital programming system of claim 8, wherein the live interactive programming further comprises a plurality of graphics signals and the selecting means selects one of the graphics signals at a predetermined time, the selection of the graphics signal a function of the branching codes and the viewer profile, and further comprising a means, connected to the microprocessor, for presenting the selected graphics signal on the display means.

13. A system for providing live interactive digital programming, comprising:
a means for receiving video signals from a plurality of video cameras, one or more of the cameras relaying a different predetermined view of a live event;
a means for producing one or more audio signals corresponding to the live event;
a means for generating one or more graphics signals;
at least one digital compression device, connected to the receiving and producing means, for digitally compressing the video, graphics and audio signals;
a means for processing, connected to the compression device, wherein the processing means creates a set of data commands which link together the various

audio, graphics and video signals, the data commands including branching commands;
a digital multiplexer, connected to the digital compression device, for
multiplexing the video, graphics and audio signals, and the data codes into a
combined digital program stream; and
a means for transmitting the combined digital program stream.

14. A method for providing live interactive digital programming, comprising the steps of:

obtaining video signals from a plurality of video cameras, one or more of the
cameras relaying a different view of a live event;

producing one or more audio signals corresponding to the live event;

creating one or more graphics signals;

receiving the video and audio signals in a control studio;

digitally compressing the video, graphic and audio signals;

producing a set of data codes corresponding to the programming, the data
codes including branching commands;

digitally multiplexing the video, graphics and audio signals, and the data
codes into a combined digital program stream;

transmitting the combined digital program stream;

receiving the combined digital program stream at a receive site;

re-transmitting the combined digital program stream on a digital cable television distribution system;

receiving the combined digital program stream at one or more viewer sites;

gathering viewer specific information;

processing the data commands;

digitally demultiplexing the video and audio signals resulting in a first video and audio signal, the first output video and first audio signal selected based on the data commands and gathered viewer specific information;

instructing the digital demultiplexer to commence demultiplexing a second video and second audio signal, the second video signal and second audio signal selected based on the data commands and gathered viewer specific information;

seamlessly switching from the first to the second video signal; and

displaying the second video signal on a screen.

15. The method of claim 14, further comprising the steps of:

creating a viewer profile with the gathered viewer specific information;

wherein selecting the video and audio signals are based in part on the viewer profile.

16. The method of claim 14, wherein the step of gathering viewer specific information comprises the steps of:

displaying at least one interrogatory to the viewer, the content of the interrogatory involving program options;

collecting entries from the viewer in response to the interrogatories; and

wherein the selection of video or audio signals is based in part on the collected viewer entries.

17. A method for providing live interactive digital programming, comprising:

receiving live interactive programming, the live interactive programming comprising a plurality of digitally compressed video, audio, branching codes, and one or more uniform resource locators specifying one or more Internet addresses of related Internet information segments obtained from Web sites on the Internet, the reception system comprising:

obtaining viewer entries;

selecting one of the video and audio signals and directing a seamless switch to the selected video and audio signals at a predetermined time, the selection of the video and audio signals and the predetermined time of each selection a function of the branching codes and the obtained viewer entries;

decoding the uniform resource locators to determine the specified Internet addresses;

retrieving the one or more Internet information segments residing at the
determined Internet addresses; and

demultiplexing the selected video and audio signals;

decompressing the demultiplexed selected video and audio signals; and

presenting the video and audio signals, and Internet information segments.

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